HT-00-001B

OIPE JC133 NOV 24 2003 PATENT & TRADEMARK OFFICE

November 18, 2003

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572
28 Davis Avenue
Poughkeepsie, N.Y. 12603

Subject: Serial No. 10/649,456 08/27/03

C.T. Horng et al.

ROBUST HARD BIAS/CONDUCTOR LEAD STRUCTURES FOR FUTURE GMR HEADS

Grp. Art Unit:

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56. Copies of each document is included herewith.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313,1450, on November 21, 2003.

Stephen B. Ackerman, Reg.# 37761

Signature/Date 11/21/03

U.S. Patent 5,479,696 to McNeil, "Method of Making Combination Read/Write Magnetic Head," provides a combination read/write magnetic head in which the conducting leads are a Ta/Au/Ta lamination.

U.S. Patent 5,268,806 to Goubau et al., "Magnetoresistive Transducer Having Tantalum Lead Conductors," discloses a lead layer structure which comprises a thin film layer of body-centered-cubic (bcc) tantalum (alph-phase Ta) which is separated from the sensor element by a thin film seed layer formed of material taken from the group consisting of TiW, TaW, Cr and W.

U.S. Patent 5,491,600 to Chen et al., "Multi-Layer Conductor Leads in a Magnetoresistive Head," discloses a multilayered conductive lead structure consisting of layers of conductive material alternating with layers of refractory metal, such as layers of gold/nickel alloy alternating with layers of tantalum.

U.S. Patent 5,883,764 to Pinarbasi, "Magnetoresistive Sensor Having Multi-Layered Refractory Metal Conductor Leads," discloses a method for forming very thin and highly conductive lead layers over the longitudinal bias layers of a spin-valve type read sensor.

Sincerely,

Stephen B. Ackerman,
Reg. No. 37761

Form PTO-1449

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)	Application Number
HT-00-001B	10/649,456
Applicant: C.T. Horng et al.	
Filing Date: 08/27/03	Group Art Unit:

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5479696	1/2/96	McNeil	29	603	2/15/94
	5268806	12/7/93	Gouban et al.	360	113	1/21/92
	5491600	2/13/96	Chen et al.	360	113	5/4/94
	5883764	3/16/99	Pinarbasi	360	113	10/3/97

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	Translation NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.